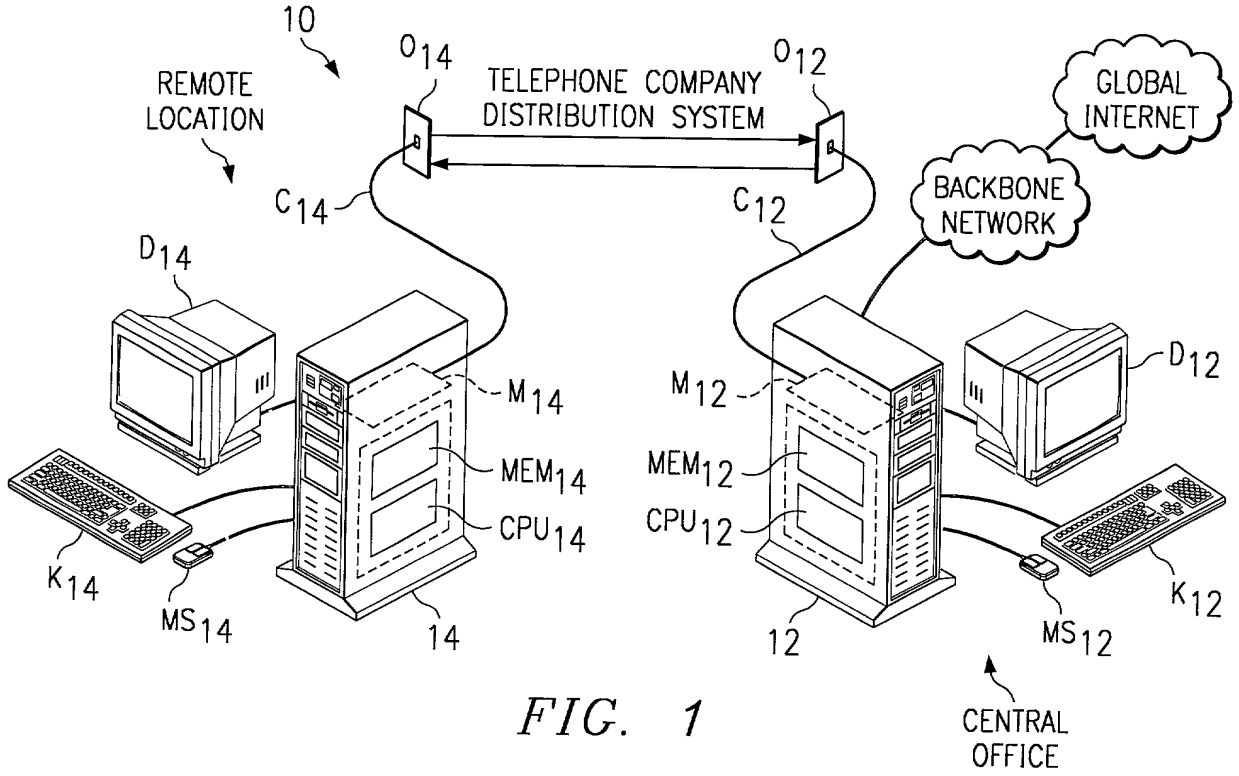

10
REMOTE LOCATION
O_{14}
TELEPHONE COMPANY DISTRIBUTION SYSTEM
O_{12}
GLOBAL INTERNET
BACKBONE NETWORK
C_{14}
C_{12}
D_{14}
M_{14}
MEM_{14}
CPU_{14}
K_{14}
MS_{14}
14
M_{12}
MEM_{12}
CPU_{12}
D_{12}
K_{12}
MS_{12}
12
CENTRAL OFFICE

FIG. 1

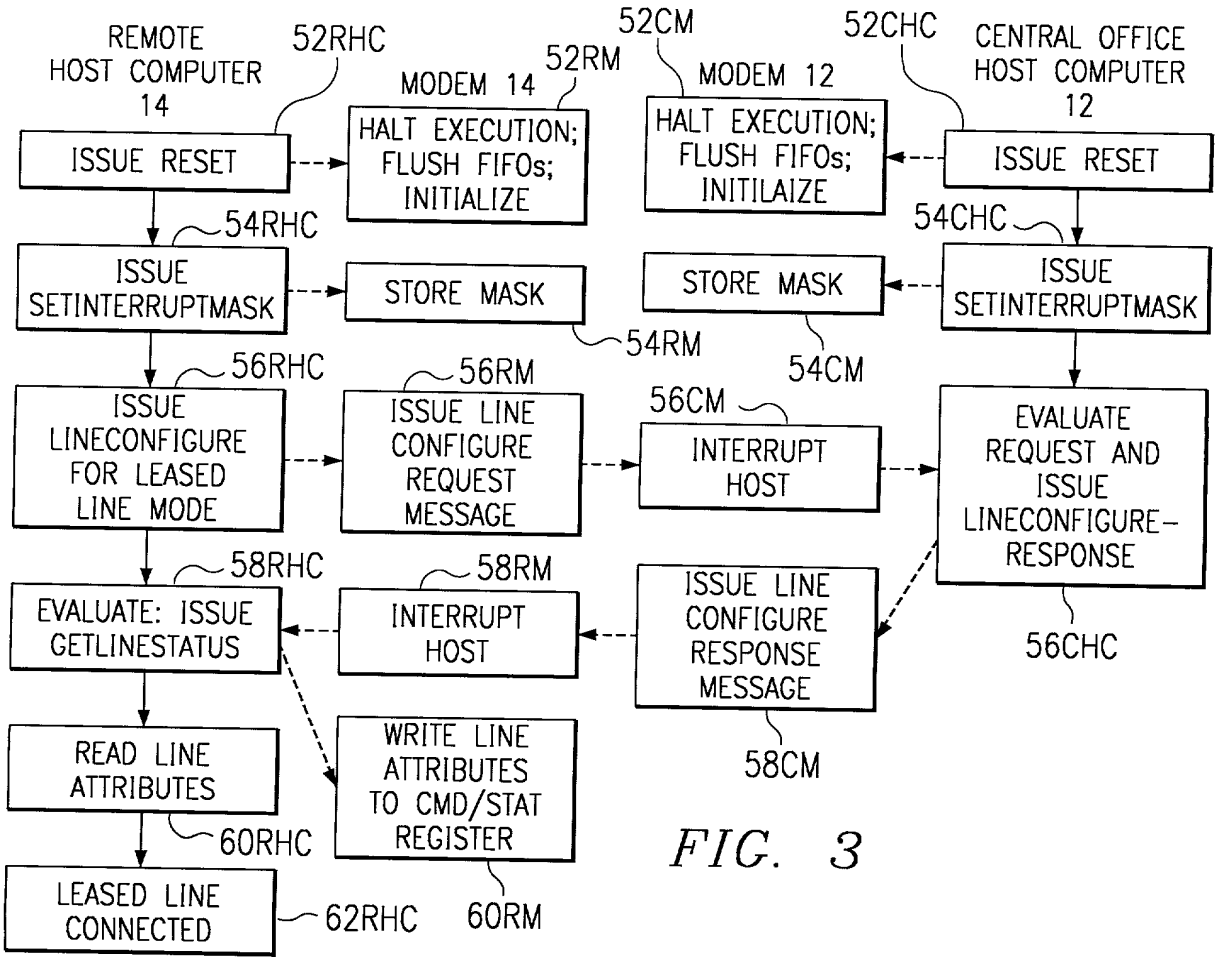
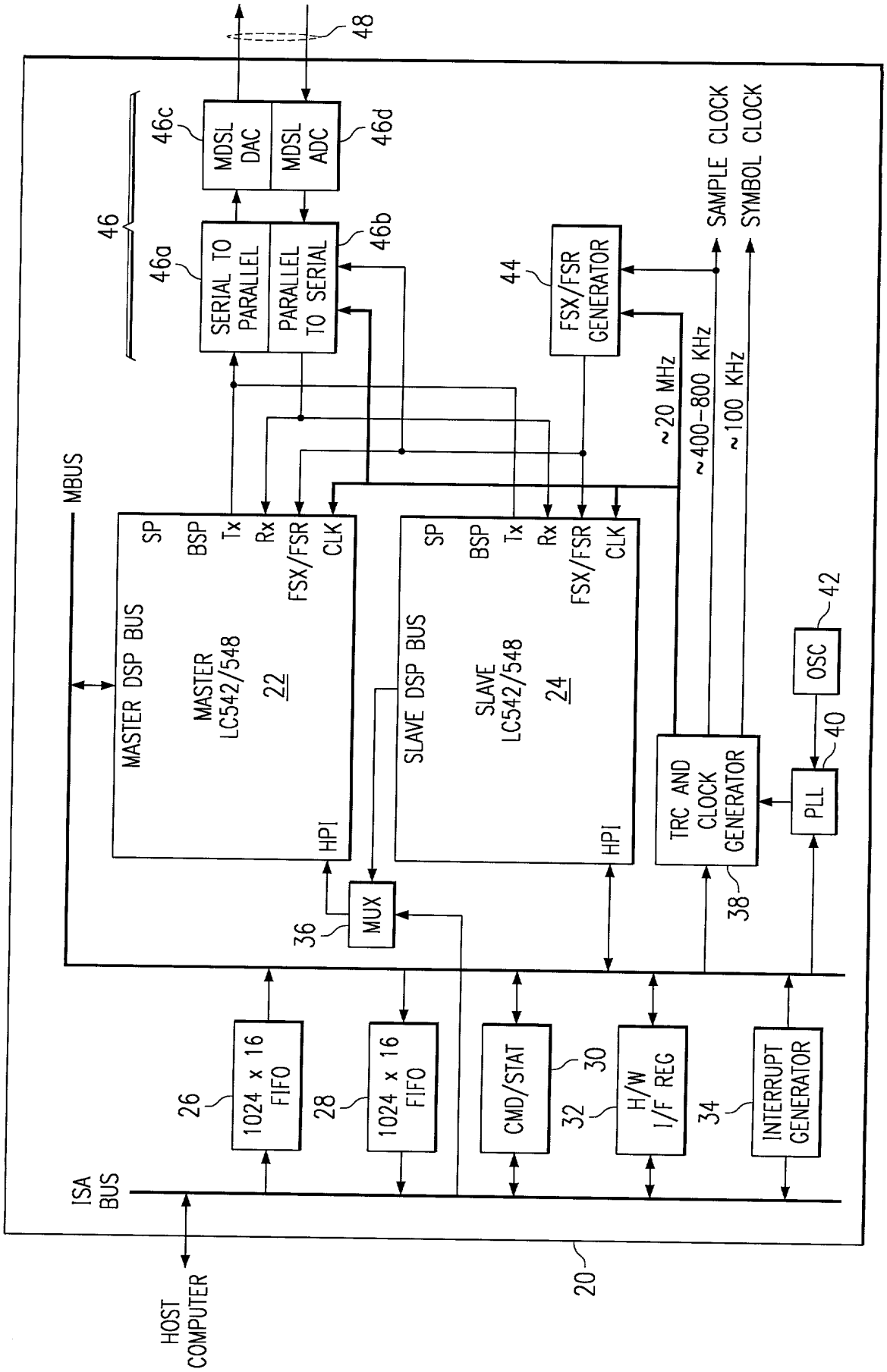

REMOTE HOST COMPUTER 14
52RHC
MODEM 14
52RM
52CM
MODEM 12
52CHC
CENTRAL OFFICE HOST COMPUTER 12
ISSUE RESET
HALT EXECUTION; FLUSH FIFOs; INITIALIZE
HALT EXECUTION; FLUSH FIFOs; INITILAIZE
ISSUE RESET
54RHC
54CHC
ISSUE SETINTERRUPTMASK
STORE MASK
STORE MASK
ISSUE SETINTERRUPTMASK
54RM
54CM
56RHC
56RM
56CM
ISSUE LINECONFIGURE FOR LEASED LINE MODE
ISSUE LINE CONFIGURE REQUEST MESSAGE
INTERRUPT HOST
EVALUATE REQUEST AND ISSUE LINECONFIGURE-RESPONSE
58RHC
58RM
EVALUATE: ISSUE GETLINESTATUS
INTERRUPT HOST
ISSUE LINE CONFIGURE RESPONSE MESSAGE
56CHC
READ LINE ATTRIBUTES
WRITE LINE ATTRIBUTES TO CMD/STAT REGISTER
58CM
60RHC
LEASED LINE CONNECTED
62RHC
60RM

FIG. 3

FIG. 2


48
46c
MDSL DAC
MDSL ADC
46d
46
46a
SERIAL TO PARALLEL
PARALLEL TO SERIAL
46b
44
FSX/FSR GENERATOR
SAMPLE CLOCK
SYMBOL CLOCK
~20 MHz
~400-800 KHz
~100 KHz
MBUS
SP
BSP
Tx
Rx
FSX/FSR
CLK
MASTER DSP BUS
MASTER LC542/548
22
HPI
SLAVE DSP BUS
SLAVE LC542/548
24
36
MUX
TRC AND CLOCK GENERATOR
38
OSC
42
PLL
40
26
1024 x 16 FIFO
28
1024 x 16 FIFO
CMD/STAT
30
32
H/W I/F REG
34
INTERRUPT GENERATOR
ISA BUS
HOST COMPUTER
20

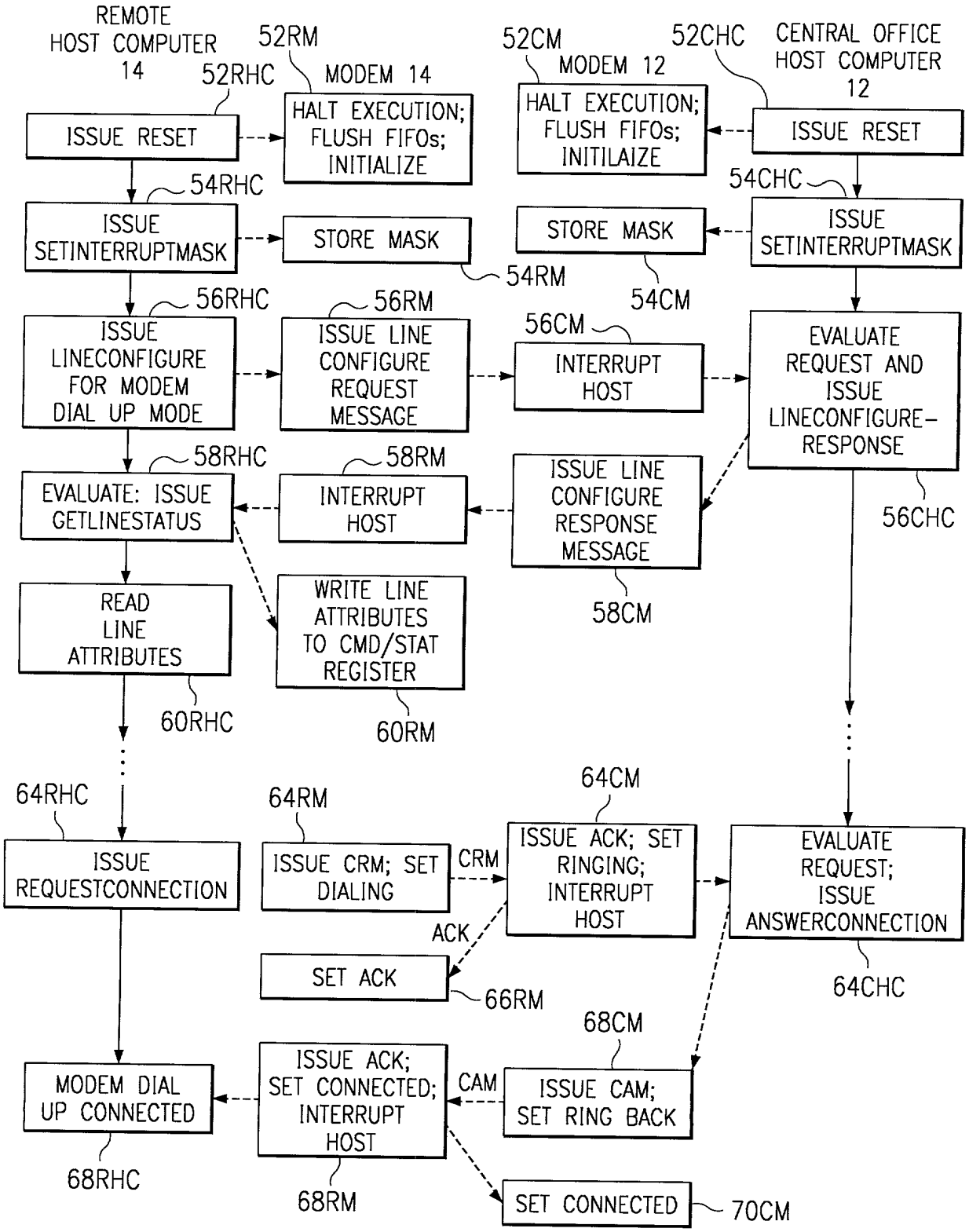

REMOTE HOST COMPUTER 14
52RM
MODEM 14
52RHC
52CM
MODEM 12
52CHC
CENTRAL OFFICE HOST COMPUTER 12
ISSUE RESET
HALT EXECUTION; FLUSH FIFOs; INITIALIZE
HALT EXECUTION; FLUSH FIFOs; INITILAIZE
ISSUE RESET
54RHC
54CHC
ISSUE SETINTERRUPTMASK
STORE MASK
STORE MASK
ISSUE SETINTERRUPTMASK
54RM
54CM
56RHC
56RM
56CM
ISSUE LINECONFIGURE FOR MODEM DIAL UP MODE
ISSUE LINE CONFIGURE REQUEST MESSAGE
INTERRUPT HOST
EVALUATE REQUEST AND ISSUE LINECONFIGURE-RESPONSE
58RHC
58RM
EVALUATE: ISSUE GETLINESTATUS
INTERRUPT HOST
ISSUE LINE CONFIGURE RESPONSE MESSAGE
56CHC
58CM
READ LINE ATTRIBUTES
WRITE LINE ATTRIBUTES TO CMD/STAT REGISTER
60RHC
60RM
64RHC
64RM
64CM
ISSUE REQUESTCONNECTION
ISSUE CRM; SET DIALING
CRM
ISSUE ACK; SET RINGING; INTERRUPT HOST
EVALUATE REQUEST; ISSUE ANSWERCONNECTION
ACK
SET ACK
66RM
64CHC
68CM
ISSUE ACK; SET CONNECTED; INTERRUPT HOST
CAM
ISSUE CAM; SET RING BACK
MODEM DIAL UP CONNECTED
68RHC
68RM
SET CONNECTED
70CM

FIG. 4